

Abstract

Memory chip having a memory cell and method for fabricating a memory cell

A description is given of memory cells having trench capacitors, the trench capacitor being at least partially filled with a material which could not withstand high-temperature processes used during the fabrication of a memory chip without impairment of its electrical parameters. What is essential to the invention is that the material of the trench capacitor is introduced into the trench only after the high-temperature processes. The method according to the invention makes it possible to use dielectric layers having large dielectric constants and electrode layers made of metallic material. The electrical properties of the trench capacitor are thus improved in comparison with known trench capacitors.

Figure 1